Claims

1. (Currently Amended) A method for accessing a shared resource comprising:

~~using a shared resource by a station~~ sharing a resource between a plurality of stations;

determining a first backoff interval by measuring an average wait time that one of said plurality of stations incurred during previous access attempts to the shared resource; and

~~refraining~~ once it is determined that the one of said plurality of stations desires access to the shared resource and the shared resource first becomes available, preventing the one station from contending for access to said shared resource for ~~a backoff interval~~ an interval equal to the first backoff interval ~~after the last use of said shared resource , wherein said backoff interval is determined by measuring an average wait time that the station incurred during previous access attempts~~.

2. (Currently Amended) The method of claim 1, further comprising transmitting a frame from the one of said plurality of stations to another station using said shared resource after said first backoff interval has passed ~~refraining~~, wherein said shared resource is a shared-communications channel.

3. (Currently Amended) The method of claim 1, further comprising, after the first backoff period is determined, powering down a receiver circuit in the one of said plurality of stations for at least a portion of said first backoff interval while the one station is being prevented from contending for access to the shared resource.

4. (Currently Amended) The method of claim 1, wherein said first backoff interval is further based on at least one of:

i) a moving average; and

ii) a contention window value.

5. (Currently Amended) The method of claim 1, ~~wherein said backoff interval comprises a time interval that is based on a random number~~ wherein the station is prevented from contending for access to the shared resource for a second random backoff period beyond said first determined backoff period.

6. (Currently Amended) The method of claim 5, wherein said ~~time interval~~ second random backoff period can assume a nonzero value only after an unsuccessful attempt to transmit occurs.

7. (Currently Amended) The method of claim 1, wherein said backoff interval is constrained to be at least as long as an IEEE 802.1 1 distributed interframe space.

8. (Currently Amended) A method for accessing a shared resource comprising:

~~using a shared resource by a station~~ sharing a resource between a plurality of stations;

determining a first backoff interval by measuring an average wait time that one of said plurality of stations incurred during previous access attempts to the share resource;

~~refraining~~ once it is determined that the one of said plurality of stations desires access to the shared resource and the shared resource first becomes available, preventing the one station

from contending for access to said shared resource for [[a]] an interval equal to said first backoff interval ~~after the last use of said shared resource~~; and

after the first backoff period is determined, powering down a receiver circuit in the one of said plurality of stations for at least a portion of said first backoff interval while the one station is being prevented from contending for access to the shared resource [[,]]

~~wherein said backoff interval is determined by measuring an average wait time that the station incurred during previous access attempts~~.

9. (Currently Amended) The method of claim 8$_A$ further comprising transmitting a frame from the one of said plurality of stations to another station using said shared resource after said first backoff interval has passed ~~refraining~~, wherein said shared resource is a shared-communications channel.

10. (Currently Amended) The method of claim 8$_A$ wherein said first backoff interval is further based on at least one of:

i) a moving average; and

ii) a contention window value.

11. (Currently Amended) The method of claim 8$_A$ ~~wherein said backoff interval comprises a time interval that is based on a random number~~ wherein the station is prevented from contending for access to the shared resource for a second random backoff period beyond said first backoff period.

12. (Currently Amended) The method of claim 11, wherein said ~~time interval~~ second random backoff period can assume a nonzero value only after an unsuccessful attempt to transmit occurs.

13. (Currently Amended) An apparatus comprising:

a transmitter for ~~using~~ transmitting data over a shared resource; and

a processor configured to determine a first backoff interval by measuring an average wait time that the transmitter incurred during previous attempts to access the shared resource and, once it is determined that the apparatus desires access to the shared resource and the shared resource first becomes available, to prevent the apparatus ~~for refraining~~ from contending for access to said shared resource for [[a]] an interval equal to the first backoff interval ~~after the last use of said shared resource~~,

~~wherein said backoff interval is determined by measuring an average wait time that the transmitter incurred during previous access attempts~~.

14. (Currently Amended) The apparatus of claim 13, further comprising a receiver for receiving data from the shared resource;

wherein the receiver is powered ~~powering~~ down for at least a portion of said first backoff interval while the apparatus is being prevented from contending for access to the shared resource.

15.-16. (Canceled)

17. (Currently Amended) The apparatus of claim 13, wherein said shared resource is a shared-communications channel and wherein said transmitter communicates over said shared-communications channel in accordance with an IEEE 802.1 1 protocol.

18. (Currently Amended) ~~An apparatus~~ A system comprising:

~~a host computer for directing a station to use a shared resource, said station for~~

a station and an access point communicating over a shared resource, said station configured to:

~~(1) using said shared resource;~~

~~(2)~~

transmit data over said shared resource;

receive a first backoff interval value from said access point;

~~refraining~~ once it is determined that the station desires access to the shared resource and the shared resource first becomes available, to refrain from contending for access to said shared resource for [[a]] a first interval equal to said first backoff interval value ~~after the last use of said shared resource~~; and

~~(3) powering~~ power down a receiver circuit for at least a portion of said first ~~backoff~~ interval while the station is being prevented from accessing the shared resource ~~, wherein said backoff interval is determined by measuring an average wait time that the station incurred during previous access attempts;~~

said access point configured to:

determine a first backoff interval value by measuring an average wait time that the access point incurred during previous attempts to access the shared resource; and

distribute the first backoff interval value to one or more stations.

19.-20. (Canceled)

21. (Currently Amended) The apparatus of claim 18, ~~wherein said backoff interval comprises a time interval that is based on a random number~~ wherein the station is prevented from contending for access to the shared resource for a second random backoff period beyond said first backoff period.

22. (Currently Amended) An apparatus comprising:

a means for transmitting ~~using~~ data over a shared resource; ~~and~~

a means for determining a first backoff interval by measuring an average wait time that the means for transmitting incurred during previous access attempts; and

a means for ~~refraining~~ determining that the apparatus desires access to the shared resource and that the shared resource has first become available, and for preventing the apparatus from contending for access to said shared resource for [[a]] an interval equal to the first backoff interval ~~after the last use of said shared resource~~,

~~wherein said backoff interval is determined by measuring an average wait time that the means for transmitting incurred during previous access attempts.~~

23. (Currently Amended) The apparatus of claim 22, further comprising a means for, after the first backoff period is determined, powering down a receiving means for at least a portion of said

first backoff interval while the apparatus is being prevented from contending for access to the shared resource.

24. (Canceled)

25. (Currently Amended) The apparatus of claim 22, wherein said shared resource is a shared-communications channel and wherein said means for transmitting transmits over said shared-communications channel in accordance with an IEEE 802.1 1 protocol.

Please add the following new claims:

26. (New) The method of claim 3, further comprising powering down the transmitter in the one of said plurality of stations for at least the same portion of said first backoff interval.

27. (New) The apparatus of claim 14, wherein the transmitter is powered down for at least the same portion of said first backoff interval.